

Trauma PI at Level I Trauma Center

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Objectives

- Review American College of Surgeons requirement
- Determine “your” facilities priorities-Surveillance
- Outline the PI process at a Level I Trauma Center-Loop Closure
- Describe use of Trauma One PI tab

PIPS

- Performance improvement & patient safety
 - Quality issue (PI)
 - Safety issue (PS)
 - Both (PIPS)

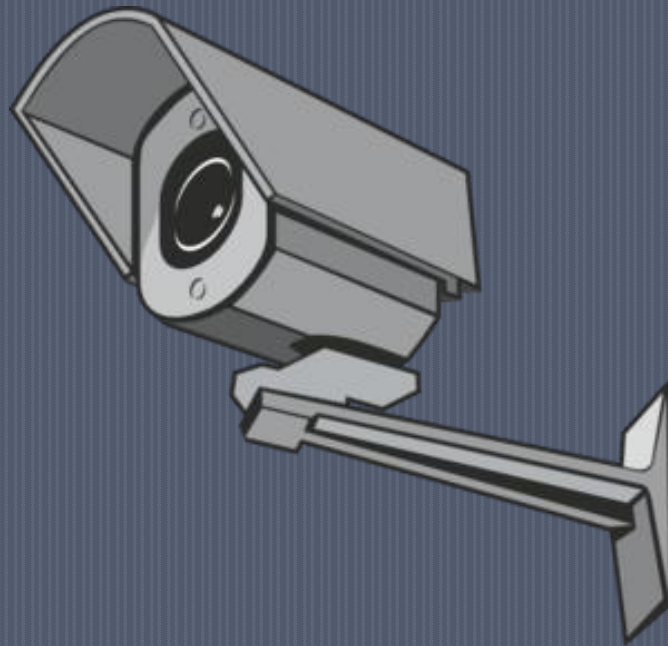
College Standards

- Level I
- Level II
- Level III/IV

Mandates

- Data-surveillance
- Committees
- Members of committees

Surveillance



Committees

- Process Improvement committee
- Multidisciplinary Peer
- Trauma Program Operational Process Performance Committee

Defintions

- Complication
- Disease-related
- Provider-related
- System-related
- Nonpreventable
- Potentially preventable
- Preventable

PI Step by Step

- Where to look
- Is it a problem
- What do we do with it

Where to Look

- Registry
- M & M
- Hospital chart
- Yellow Card-reported issues
- Focused audit

Audit tool

<input type="checkbox"/> PI Reviewable <input type="checkbox"/> Tab/File <input type="checkbox"/> To QM	<input type="checkbox"/> T/T <input type="checkbox"/> Tab/File	<input type="checkbox"/> Final Check Complete
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Name _____	ED Arrival Date/Time: _____	Discharge Date/Time: _____	
MRN _____	Time of Dispo/Death @ _____	Readmit: _____	D/C _____
	R Y G C/S Upgrade to:	Injury ONLY	Adult Peds OB
	ICU/PICU Floor/Peds OR Room #: _____		
	Home Admitted to: TRA Non-surgical Other _____		

MOI	Blunt Penetrating Description: _____
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Trauma Surg _____	TOA _____	C/S @ _____	Peds Attending _____	TOA _____	
ED Physician _____	TOA _____	<input type="checkbox"/> > 15 min for surgeon arrival (RED)			

Pre-hospital

Ground Air POV Agency _____	<input type="checkbox"/> Pre-hospital Issue _____
Transferred From _____	<input type="checkbox"/> No EMS Record/Incomplete
Time of Arrival at OSH _____	<input type="checkbox"/> Received Tx > 6hrs after arrival at OSH

ED/Trauma Resuscitation

Initial VS @ _____ BP _____ P _____ RR _____	<input type="checkbox"/> Under-Triage
SpO2 _____ on O2 Y / N T _____ Rte _____	<input type="checkbox"/> Documentation Incomplete
GCS _____ HT(cm) _____ /Wt(kg) _____	<input type="checkbox"/> Weight/Broselow not documented
IVF (ml) _____ ml/Kg _____	<input type="checkbox"/> Massive Transfusion Protocol
Blood products given in ED _____	<input type="checkbox"/> CT > 2 hrs after arrival w head injury
Time to CT _____	<input type="checkbox"/> ED LOS > 120 minutes to ICU or OR
CT's Released: H _____ N _____ CAP _____ Other _____	<input type="checkbox"/> Craniotomy > 4 hrs post arrival
Intubated Y / N	<input type="checkbox"/> Laparotomy > 2 hrs after arrival

In-Patient

DVT Prophylaxis <input type="checkbox"/> N/A (PEDS) Ordered on: _____	<input type="checkbox"/> DVT Upper Extremity: _____
<input type="checkbox"/> SCDs <input type="checkbox"/> Lovenox/Heparin <input type="checkbox"/> Contraindicated _____	<input type="checkbox"/> DVT Lower Extremity: _____
<input type="checkbox"/> Vap <input type="checkbox"/> CAUTI <input type="checkbox"/> CLABSI	

v03 2012

Audit Tool

<input type="checkbox"/> PI Reviewable <input type="checkbox"/> Tab/File <input type="checkbox"/> To QM	<input type="checkbox"/> T/T <input type="checkbox"/> Tab/File	<input type="checkbox"/> Final Check Complete
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N/A ☐

☐ Amputation, unanticipated _____

☐ **Case by case** _____

☐ **Delay in care** _____

☐ **Delay in diagnosis (found after disposition from ED/tertiary survey)** _____

☐ **Missed injury (found after discharge)** _____

☐ Non-operative management of GSW to the abdomen _____

☐ Nursing issues _____

☐ **Radiology Misread** _____

☐ Retro admission from floor to ICU _____

☐ Splenectomy required (Pediatric ONLY) _____

☐ System issues _____

☐ Transfer to another facility _____

☐ Transfer from floor to ICU within 24 hours of admission _____

☐ **Unplanned OR** _____

☐ Compartment Syndrome _____

☐ Open Fx not surgically corrected within 24 hours _____

☐ Post-admission PE _____

☐ Patient self-extubation _____

☐ Re-intubation following intentional extubation (exclude OR) _____

☐ Readmission to the hospital within 30 days after discharge _____

☐ Pan scan justification (Pediatric Only) _____

Admit Diagnosis	Discharge Diagnosis	Procedures (Bronches, Blood tx, CRRT/HD, Lines, etc)

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Yellow Card

<input type="checkbox"/> unknown		***Additional comments on back	
Patient Sticker		Date of Event: _____ Location of Event: _____ <i>Please Print</i> Your Name: _____	
<small>CONFIDENTIAL MATERIALS PROTECTED under ARS § 36-445, ARS § 36-2405 and Federal Safety and Quality Improvement Act of 2005</small>			
Event/Issue Description:			
Intervention Performed:			
<input type="checkbox"/> process or system related,		<input type="checkbox"/> patient related, <input type="checkbox"/> provider related	
<input type="checkbox"/> unknown		***Additional comments on back	

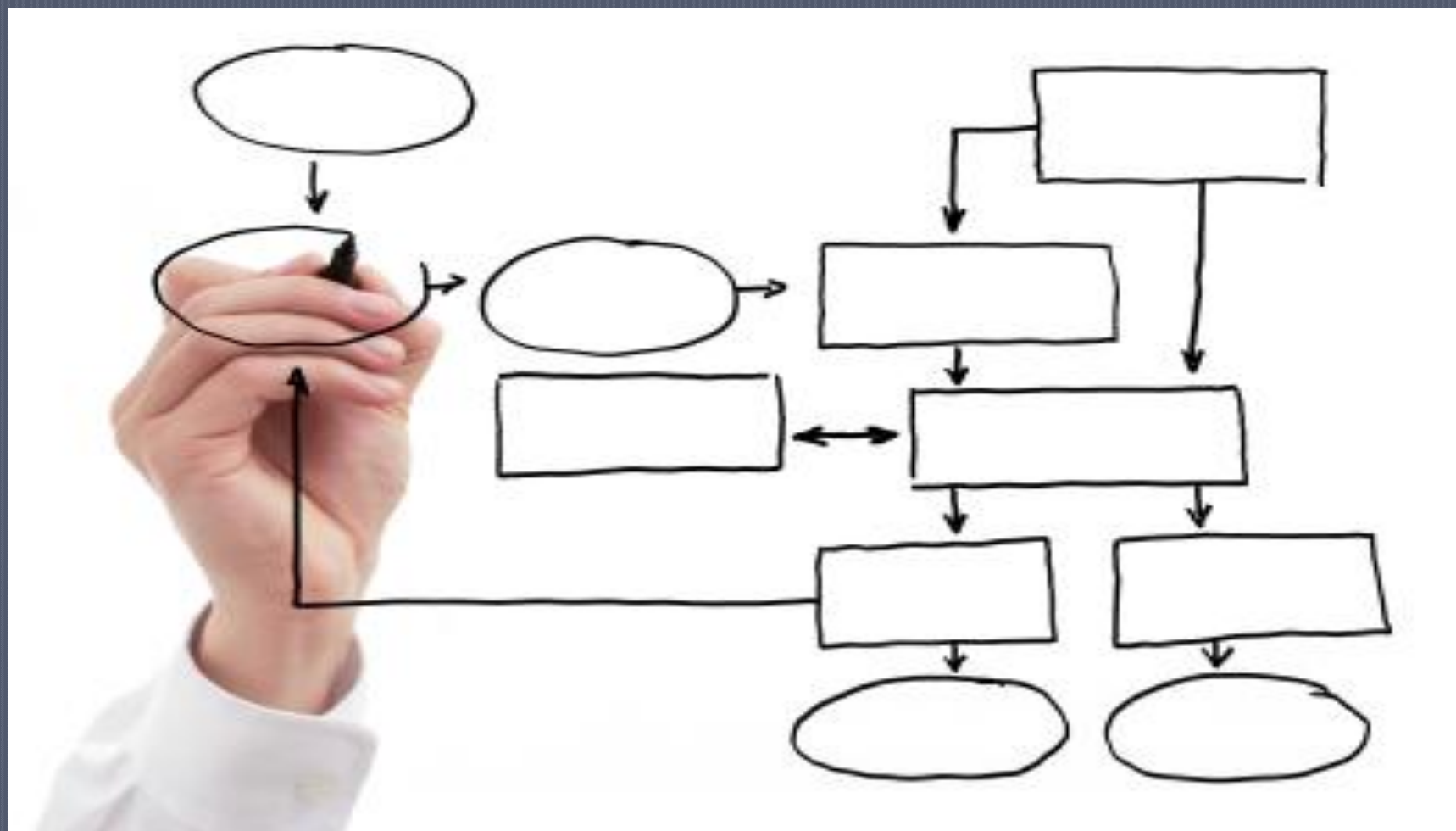
What to Look For

- Compliance with guidelines
- Delays in care
- Errors in judgment

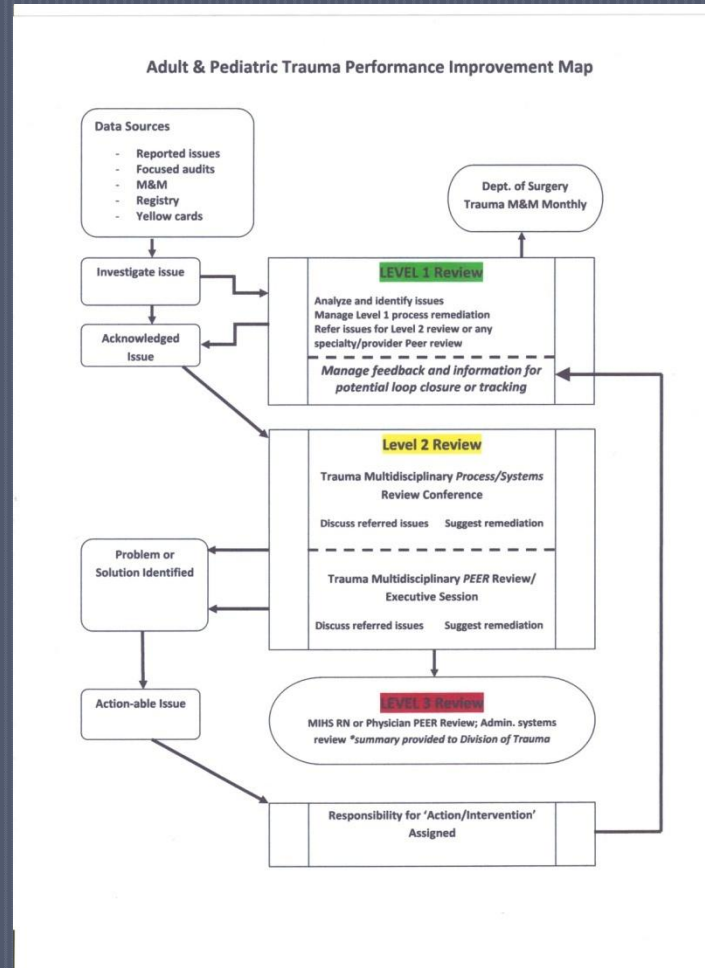
Process Improvement Complications List 2013
Maricopa Medical Center - Trauma Services

Amputation, unanticipated	R
Case by case	R
Craniotomy > 4 hours post arrival	R
Death	R
Delay in care	R
Delay in diagnosis (found after disposition from ED/tertiary survey)	R
Laparotomy performed > 2 hours after arrival to the ED	R
Missed injury (found after discharge)	R
Non-operative management of GSW to the abdomen	R
Nursing issues	R
Pre-hospital issues	R
Radiology mis-read	R
Readmission to the hospital within one week after discharge	R
Retro admission from floor to ICU	R
Splenectomy required (Pediatric only)	R
System Issues	R
Transfer to another facility	R
Transfer from floor to ICU within 24 hours of admission	R
Under triage	R
Unplanned OR	R
Admitted to service other than Trauma	T
Compartment Syndrome	T
CT > 2 hours after arrival for head injury	T
DVT - upper extremity	T
DVT - lower extremity	T
ED LOS > 2 hours for ICU or OR disposition	T
Massive Transfusion Protocol	T
Open fracture not surgically corrected within 24 hours	T
Patient self-extubation	T
Patients weight/Broselow/temperature not documented (Pediatric only)	T
Post-admission onset of PE	T
Received transfer > 6 hours after arrival at other facility	T
Re-intubation following intentional extubation (excluding OR)	T
Trauma Attending > 15 minutes for RED activation	T
Pan scan justification (Pediatric only)	T

Highlighted items are forwarded to Quality Management/Peer Review Coordinator



What to Do With It



Level I Review

- Analyze & identify issue
- Investigate
- Acknowledge
- Remediation-loop closure
- Refer to Level II

Level II Review

- Trauma Multidisciplinary Process/Systems Review Conference
 - Discuss referred issues
 - Suggest remediation
- Trauma Multidisciplinary PEER Review/Executive Session
 - Discuss referred issues
 - Suggest remediation

Level III Review

- Administrative system review
- Results will be sent to Trauma

Peer

- Difference between PEER and PI
- How PEER fits with hospital

Level I Review Form

Trauma Process Level 1 Review Form				
Patient Name:		Age:	Attending:	
MRN:		Date of Occurrence:		
Improvement Screen				
Source:		Location of Issue:		
<input type="checkbox"/> Trauma PI Coordinator	<input type="checkbox"/> Conference/M&M	<input type="checkbox"/> Pre-Hospital	<input type="checkbox"/> OR/PACU	<input type="checkbox"/> PICU
<input type="checkbox"/> Yellow Card	<input type="checkbox"/> Rounds/Physician	<input type="checkbox"/> ED/Trauma Bay	<input type="checkbox"/> Radiology	<input type="checkbox"/> ICU
<input type="checkbox"/> Quality Management	<input type="checkbox"/> Other:	<input type="checkbox"/> Peds ED	<input type="checkbox"/> Floor	<input type="checkbox"/> Other:
Issue, Problem or Complaint				
<input type="checkbox"/> Amputation (unanticipated)	<input type="checkbox"/> Missed Injury (After Discharge)	<input type="checkbox"/> Splenectomy Required (Pediatric)		
<input type="checkbox"/> Case by Case	<input type="checkbox"/> Non-op management of GSW to ABD	<input type="checkbox"/> Systems Issue		
<input type="checkbox"/> Crani > 4 Hrs post arrival	<input type="checkbox"/> Nursing Issues	<input type="checkbox"/> Transfer to another Facility		
<input type="checkbox"/> Death	<input type="checkbox"/> Pre-hospital Issue	<input type="checkbox"/> Transfer from floor to ICU w/in 24hrs of admit		
<input type="checkbox"/> Delay in Care	<input type="checkbox"/> Radiology Mis-read	<input type="checkbox"/> Under Triage		
<input type="checkbox"/> Delay in Dx (after ED dispo)	<input type="checkbox"/> Readmission to hosp within 30 days	<input type="checkbox"/> Unplanned OR		
<input type="checkbox"/> Lap >	<input type="checkbox"/> Retro-admit from floor to ICU	<input type="checkbox"/> Other		
Further Explanation/Comments				
Medical Director Review				
PR Judgement: <input type="checkbox"/> Non-Preventable <input type="checkbox"/> Potentially Preventable <input type="checkbox"/> Preventable <input type="checkbox"/> Cannot be determined <input type="checkbox"/> Track/Trend				
Determination: <input type="checkbox"/> System <input type="checkbox"/> Disease <input type="checkbox"/> Provider <input type="checkbox"/> Cannot be determined <input type="checkbox"/> N/A				
Care Appropriate:		Care not appropriate:		
<input type="checkbox"/> Care appropriate/predictable event		<input type="checkbox"/> Care		
<input type="checkbox"/> Care appropriate/unpredictable event		<input type="checkbox"/> Documentation		
		<input type="checkbox"/> System		
		<input type="checkbox"/> Clinical Judgment		
		<input type="checkbox"/> Communication		
		<input type="checkbox"/> Professionalism/Ethics		
Medical Director Comments				
Arrival/Loop Closure				
<input type="checkbox"/> None/No Further Action		<input type="checkbox"/> No Referral Required		
<input type="checkbox"/> Guideline/Protocol Development		<input type="checkbox"/> Other:		
<input type="checkbox"/> Focused Audit/Study		<input type="checkbox"/> Refer to Peer/QM Coordinator:		
<input type="checkbox"/> Track and Trend		<input type="checkbox"/> Refer to Pre-Hospital Coordinator:		
<input type="checkbox"/> Education/M&M		<input type="checkbox"/> Refer to ED Liaison:		
<input type="checkbox"/> Letter/Discuss with Provider		<input type="checkbox"/> Refer to TPOPPC or Adult PI:		
		<input type="checkbox"/> Department Manager		
<input type="checkbox"/> Pending:				
<div> <div>Medical Director's Signature</div> <div>Date</div> <div>3-13 (v5)</div> </div>				

How it Works

- 15 year old hits head
- Dx SDH without neurological deficit
- Tx: admit to ICU, Neuro consult, rescan in 4 hours
- Repeat CT-increase in bleed and now displays neurological deficits
- > 4 hours to craniotomy

How it Works

- 15 year old hits head
- DX: SDH with neurological deficit
- Admitted to ICU; symptoms worsens
- TX: taken to OR
- > 4 hours to craniotomy

How it Works

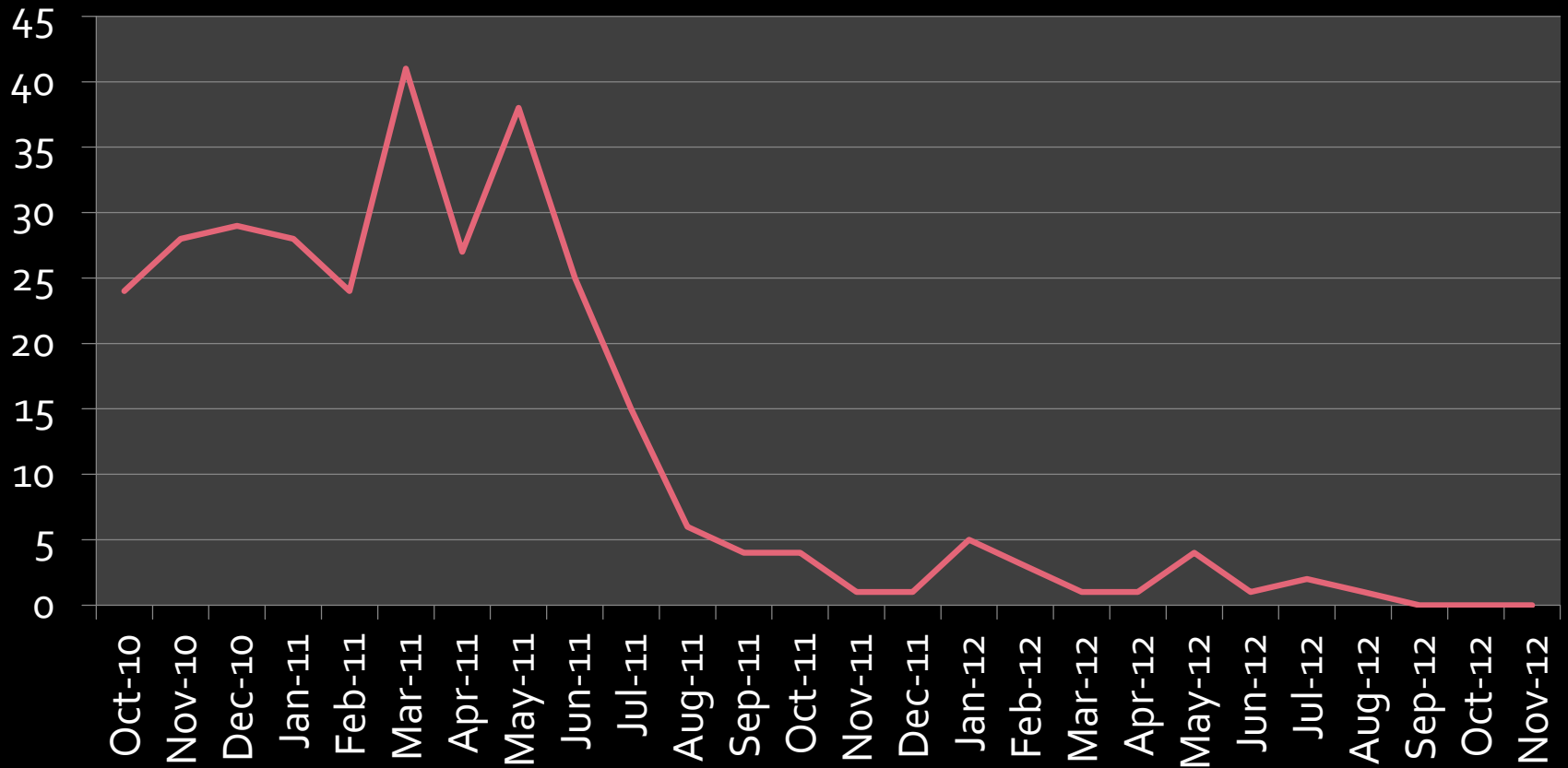
- 15 year old hit head
- DX: SDH with significant neurological issues
- TX: plan to take immediately to the OR
- Delay in OR-one room going and call team not called

Your Priorities

- Required
- Focus projects

Track & Trend

ED LOS > 2 hrs



Trauma One

- How to fill out
- How to use dashboard
- Run reports

Screen shot

Last	First	PI	Admission Date	Medical Record No.
<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>

Location	Date	Source	PI Issue
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
PR Date	PR Judgement	System Related	Disease Related
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Provider Related	Provider	Status	
<input type="text"/>	<input type="text"/>	<input type="text"/>	

Further Explanation/Comments	Loop Closure
<input type="text"/>	<input type="text"/>

Action	Refer To/Responsible
<input type="text"/>	<input type="text"/>

TPM Review Date	TMD Review Date
<input type="text"/>	<input type="text"/>

First	Previous	New	Next	Last
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Reports

- Track & Trends
- Dashboard

Dashboard

Complication	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
DVTs (upper and lower)**	0	0	0	4/99	3/121	2/102	2/106	3/105	2/97			
PE**	0	0	0	1/99	0/121	2/102	1/106	2/105	0/97			
VAP/HAP ¹	NR	0	0	5/14	0/13							
Ventilator events ¹					0/13	3/21	1/14	1/12	1/14			
CLABSI	NR	0	0	0	0	0	0	0	1			
CAUTI	NR	0	0	0	0	1	0	0	1			
Reintubations ¹	0	1/unk	0/32	0/14	0/13	1/21	2/14	1/13	1/14			
Readmit to SICU ²		1/55	1/41	0/56	1/47	0/41	2/40	1/36	0			
Admit to non-surgical service ³	0	2/120	1/119	1/110	1/114	0	0/117	0/114	0/108			
ED LOS > 120m for Reds to ICU/OR*	1	4/14	3/18	2/13	0/9	1/23	0/13	2/13	1/10			
ED LOS > 120m for all activations to ICU/OR ²					7/47	4/41	8/27	15/36	12/37			
Readmit to Hospital w/in 30 days **	1/104	2/91	5/103	4/99	1/121	3/102	2/106	5/105	1/97			
Unplanned return to OR	0	0	0	1	0	0	0	2	3			
DOA/Deaths	3/6	1/4	1/3	3/6	1/5	2/9	5/6	0/5	4/8			
Self-extubations ¹	0	0	0	1/14	0/13	1/21	0/14	1/13	1/14			

¹ # total intubations

² Total ICU admissions

³ Total based on activations + consults + state

* Total red activations to ICU/OR (with trauma)

** Total admitted to trauma service

NR- not received

Action Plan Required

Watch Closely

Putting the PI chart together

- Parts of the chart
- Preparing for the review
- Documentation

Trauma PI Page

Patient Name:

MR #:

Reg #:

Provider:

This form is not a part of the Medical Record.
Trauma Process Improvement Summary

Date of occurrence:

Indicator/Complication:

Further Explanation/Comments:

SOURCE:

- ☐ Rounds
☐ Conference/M&M
☐ Physician
☐ Quality Management

- ☐ Trauma Registry
☐ Trauma PI Coordinator
☐ Yellow Card
☐ Other

LOCATION OF ISSUE:

- ☐ ED / Trauma Bay
☐ Floor
☒ ICU
☐ OR
☐ PICU
☐ PACU

- ☐ Radiology / IR
☐ Pre-Hospital
☐ Lab
☐ Other
☐ Pediatric ED

PR JUDGMENT:

- ☐ Non-Preventable ☐ Potentially Preventable ☐ Preventable ☐ Cannot be determined ☐ Track & Trend

CONTRIBUTING FACTORS:

- ☐ System Related ☐ Disease Related ☐ Provider Related ☐ Not Applicable

ACTION PLAN / CORRECTIVE STRATEGY:

REFER TO / RESPONSIBLE:

LOOP CLOSURE:

STATUS: ☐ Closed ☐ Opened ☐ Pending

All records, data, and information collected and then maintained for quality performance improvement are to be used strictly for peer/professional review as defined by the Performance Staff Bylaws and board approved Professional Staff and System Committees involved in quality improvement activities. Data, records, and knowledge, including minutes, collected for or by individuals to committees assigned peer/quality review functions are confidential.

Closing the loop

- Education
- Letter
- Referral

Savage Chickens

by Doug Savage



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www.savagechickens.com

Summary

- Know the ACS/State requirements
- Pick appropriate projects
- Set the stakeholders
- Collect the data
- Use the process
- Document loop closure

Questions

